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ART. XLII. *An Inquiry into the natural Affinities of the Laniadæ, or Shrikes; preceded by some Observations on the present State of Ornithology in this Country. By* WILLIAM SWAINSON, *Esq. F. R. S. F. L. S. M. W. S. &c.*

THE very able disquisition on the present state of Ornithological nomenclature, by Mr. Vigors, which appeared in the last number of this Journal, supersedes the necessity of any further observations on those particular points which that gentleman has so well discussed; yet the subject is so much connected with the best interests of science, that I shall preface the present inquiry by a few observations upon the relative state of Botanical and Ornithological knowledge in this country; which may, perhaps, tend to illustrate the truth of the remarks above alluded to, and will not be altogether foreign to the more immediate object of this essay.

It is not too much to say that, generally speaking, Zoological Nomenclature has long usurped the station of Zoological Science. So great, indeed, is the repugnance of British Ornithologists to have their long-cherished notions about *Genera* in any way disturbed, that even the consciousness of our own national inferiority in this study is insufficient to shake their prejudices. This "closing of the mind" against new ideas and new knowledge, is, however, more to be regretted than censured. As years pass over our heads, we cling with delight to the impressions of youth; and

after a certain period, we become unalterably wedded to those doctrines which we first imbibed; which we have long been accustomed to consider as axioms, and to dwell upon with self-complacency. Knowledge will still increase; and the time may come when we ourselves may view, if not with jealousy, yet with coldness and suspicion, the new theories that may hereafter arise, from a more extensive acquaintance with Nature. It is related of Linnæus, that when, in the ardour of youth and science, he came to visit the botanists and gardens of England, on his introduction to the great and venerable Sir Hans Sloane, that distinguished man received the young stranger but coldly; being unwilling, as his biographer states, "to have his botanical creed interrupted, by innovations so totally subversive of the system he had so long cherished; Sir Hans being then in his seventy-eighth year." If therefore the younger botanists of that age had subscribed to the opinion of this great and good man, and, like him, had settled in their minds that the systems of Ray and Tournefort had displayed all that nature could teach, and that nothing more was to be studied than the characters of new species, neither the names of Jussieu, Smith, Brown, nor Decandolle, with a host of others, would perhaps have been known: nay, not even that of Linnæus himself. His system would have been rejected as presuming to teach more than others, and he himself aspersed as being the greatest innovator on the science he professed to advance. The censure that must have been cast upon the Systema Naturæ by the admirers of those systems it intended to supplant, was, no doubt, much greater than what is now bestowed upon the promoters of general views and the institutors of new genera. Yet, in spite of every opposition, the Linnæan system became firmly established; so true it is, that Science can never remain stationary, or the inquiring mind be deterred from searching out fresh springs of knowledge. It is confessed on all sides, that the botanical labours of Linnæus are infinitely more valuable than those which relate to the animal kingdom; yet the former have undergone the greatest change, with little or no opposition, from succeeding botanists; for not one can be named, of any eminence, who has opposed the ad-

mission of new divisions; and the very disciples of Linnæus have nearly doubled the number of genera contained in the early editions of their master's system. Let us look a little at the consequences that have followed. A very large proportion of those eminent botanists who have flourished since the time of Linnæus, have been natives of England. While, in our own days, we can boast of one whose eminent superiority is acknowledged throughout Europe. Such, in Botany, has been the consequence of acting on the *spirit*, and not on the *letter*, of the Systema Naturæ.

We will now consider how far the study of Ornithology has kept pace with that of Botany. This portion of the Linnæan arrangement is acknowledged to be imperfect; yet it has unfortunately happened, that no one of his disciples, possessing a vigorous and comprehensive mind, has ventured to carry on the work of improvement, by following the example set them by their great master. Linnæus, in every succeeding edition of his works, increased the number of his genera, and amended the descriptions of the species. And it is somewhat singular, that in one of the last essays with which he enriched science, are contained the characters of two new genera; as if, by this act, he intended leaving us an example to alter and improve our systems, as our knowledge of Nature becomes more extended. But no: English Ornithologists, since that day, have fancied that they could not show greater respect to the memory of Linnæus, than by guarding his system against all amendment or improvement: thus they have gone on, overloading all the old genera with hosts of birds they were never intended to contain; until, at length, the whole system is become an inextricable labyrinth, in a great measure useless, either for scientific or practical purposes. It resembles one of those beautiful trees I have seen in the forests of America, on which the seeds of different parasitic plants have been casually deposited: these take root, and gradually spread from branch to branch, until the whole becomes one undistinguishable mass. The proportions of the parent tree are no longer seen; and, overloaded by vegetation, not originally its own, it falls to the ground a heap of ruins.

This may appear an exaggerated picture, but I will appeal to any Ornithologist, engaged in the study of species, for its truth. I will appeal to the well-known fact, that the same bird is frequently described under two or more different genera in our popular systems; and to the constant exposure of their defects by continental writers. I will even cite a case in point. The peculiar structure of the tongue, in the genus *Meliphaga* of Lewen, is well known to most Naturalists: it is formed like a brush, the filaments at the end are tubular, and adapted for sucking the nectar of flowers: all the species, moreover, are natives of New Holland; they are, in short, as distinct a genus as can well be imagined. Yet, it is not a *Linnæan* genus; and therefore, if a student wishes to ascertain the name of a species, in Dr. Latham's General Synopsis of Birds, or in Shaw's Zoology, he must read the descriptions of several hundred birds arranged in the genera *Turdus*, *Certhia*, *Merops*, and *Sylvia*, before he can possibly ascertain one species: for the genus itself is altogether rejected as an innovation.

It is a painful and an ungracious task to animadvert on the works of our contemporaries; but we must speak plainly, when we see attempts made to bring us back to the infancy of the science, by the publication of systems, new indeed from the press,—but obsolete in their ideas and language.

While Botany, therefore, has been progressively advancing, Ornithology has remained nearly stationary. Our elementary books and our voluminous systems, as Mr. Vigors truly observes, speak the language of a remote period; and display a lamentable picture of our Zoological proficiency to the rest of Europe. Better indeed had there been no such terms as *Order* and *Genus*, for they have acted like a magical spell, upon minds that otherwise perhaps might have burst the trammels of nomenclature, and like Linnæus, have "dared think for themselves."

I may perhaps be censured for giving such a humiliating picture of our Ornithological knowledge, and I should have had some hesitation in drawing it, did I not see among our rising Naturalists, some whose talents and whose zeal will not only redeem the past, but take a much higher view of the science than has hitherto

been done in this, or any other country. Ornithology is neither a study of names, nor of feathers; it neither consists in giving to a bird a name, nor in describing the colours of its plumage: but rather teaches us to enquire what place it occupies in creation; what functions it is destined by Almighty Wisdom to perform; how its organization corresponds to these functions; and lastly, its various relations to other animated beings.

It is to facilitate such enquiries, which shed a ray of dignity and importance on the study of Nature, hitherto obscured by the mistaken zeal of nomenclators, that I have put together the following observations. Whatever errors they may contain I feel confident will meet with most indulgence from those who are best able to understand the difficulty of the undertaking. It is a new and intricate field of enquiry; which, to the honor of Britain, has been opened to us by one of her sons;* but is nevertheless attended with peculiar embarrassments to English Naturalists, from the acknowledged poverty of our Public Collections, and the total want of Zoological instruction,† which our students have to contend against. Let us hope these deficiencies, which have now become a national reproach, will be soon supplied by a wise legislature.

Lanianæ.

The Shrikes present so many characters analogous to the *Falconidæ*, or true birds of prey, that the most eminent Naturalists have disagreed as to their true situation. By Ray they are placed with the *Accipitres;* and this example was followed by Linnæus. On the other hand Brisson considered them as more closely allied to the Thrushes. The opinion of M. Temminck has fluctuated; for in the first edition of the *Manuel d'Ornithologie*, this Natural-

* I need hardly explain, that I here allude to the profound observations contained in the Horæ Entomologicæ of Mr. William S. MacLeay.

† Well may the foreigner who beholds our learned establishments, so splendidly endowed, note, among the most remarkable circumstances attending them, that in none whatever should there be a Zoological chair.—Hor. Ent. 2 p. 456. note.

ist has followed the classification of Ray; but in the second, he adopts that of Brisson, by placing the Shrikes and Thrushes in the same order.

The *Lanianæ* are Falcons of the Insect world, pursuing and destroying vast numbers of those countless multitudes that swarm in tropical countries. Some of these birds are so fierce and cruel as to destroy from mere wantonness; and have been called Butcher-birds, from their singular habit of impaling their victims on thorns and cleft branches, where they are left to be devoured at leisure. It is this particular group, preeminent in strength to all the other Linnæan Shrikes, that may be considered the type of the whole family: they are distinguished by a short, arched bill, furnished with a strong projecting tooth near the tip; which is acute, and altogether very analogous to the true Falcons. To these birds we shall restrict the genus *Lanius*, and taking the *Lanius excubitor* of Linnæus for the type, proceed to notice what other birds will most approximate to this form; first observing, that they are found to inhabit the temperate latitudes of the old and the new world.

I am as yet unacquainted with any species of *Lanius* from Australasia, and am therefore led to believe, that its situation is filled in that fifth division of the globe, by the genus *Falcunculus* of M. Vieillot; the Frontal Shrike is the only example of this type we yet know of. It is distinguished from *Lanius* by having longer and more pointed wings, and an even tail, both indicating a greater power of flight, and in consequence, some difference of economy. Another deviation from *Lanius* may be seen in the *Sourcirou* of M. Le Vaillaint, introduced in the *Ois. d'Afrique*, (2. pl. 76. f. 2.) though in reality a native of America; it is the *Tanagra Guianensis* of Latham, and it is remarkable for its round, naked nostrils, and the tooth of its bill being nearly obsolete; it has the wings of *Lanius*, and the tail of *Falcunculus;* this type I have called *Cyclarhis*.* I am unacquainted with any other kindred birds from the new world; while of the African types (which appear numerous and interesting) I have seen but few: judging from the figures contained in the *Oiseaux d'Afrique*, I should think it

* The characters of such new Genera as may be proposed, will be given in the next number, accompanied by figures of their bills, &c.

probable that the passage from the short-billed Shrikes to *Thamnophilus*, Vieil. will take place among the birds of that continent.

Two species, recently published by M. Temminck (*Pl. Col. pl.* 256.) seem to warrant this belief: for in the figure of *Lanius personatus*, Tem. we see the straight bill of *Thamnophilus*, with the cuneated tail of *Lanius;* while in that of *Lanius virgatus* we see the lengthened bill, and truncated tail, of *Thamnophilus*. M. Temminck has not noticed this affinity; but on the contrary believes this last bird will lead us immediately to the *Muscicapidæ*.* *Nous donnons cette espèce nouvelle comme pouvant servir de type à une section du genre Lanius, intermediare ou indiquante le passage qui, des Pie-grièches, conduit au genre Muscicapa de Linné. La force et la longueur du bec, en rapport de la petite stature, ne permettent point d'associer cette espèce et celles qui lui ressemblent plus ou moins avec les oiseaux donnés comme type des vrais Gobe-mouches, et moins encore avec le moucherolles.* M. Temminck judiciously goes on to observe, that the square form of the tail constitutes a marked difference from the European *Lanianæ;* this is true, but we find that a square, or even tail, is universal among the African *Thamnophili*; while *la force et la longueur du bec*, is the peculiar character of that family. M. Temminck very clearly proves that this bird has no connection either with the genus *Muscicapa* or *Muscipeta;* but has not informed us to which particular group of the *Muscicapidæ* it really indicates a passage; neither can I possibly conjecture where this group is to be found. On the whole, I am therefore more inclined to believe, from a review of the above argument, that the *Lanius virgatus* will offer no immediate transition to the *Muscicapidæ*, but rather will represent one of those forms by which we shall quit the short-billed rapacious Shrikes, and enter upon the insectivorous *Thamnophili*. I wish, nevertheless, that the reader should bear in mind that this opinion is not formed from an actual examination of the bird, but solely from the remarks of M. Temminck, which I have already quoted. That this bird will constitute a distinct type, appears evident from the confession of this celebrated ornithologist; but he has neither de-

* It is necessary to quote this passage, because the real situation of this bird is important.

tailed its essential character, nor given us any idea of what other birds we are to associate with it.

There is still another African *Lanius*, which departs so much from the type of this particular group, as to strengthen our belief of its being intimately connected with the *Thamnophilinæ*. The bird I allude to, is the *Bru-bru* of Le Vaillant, or *Lanius capensis* of Gmelin; here the back or culmen of the beak is curved, the tip considerably bent,(but not abruptly hooked,) and the sides strongly toothed: so far we have the indications of a true *Lanius;* yet in the more slender and lengthened form of both mandibles, and in its short and even tail, we may detect an evident approximation to the *Thamnophili*. This affinity is in some measure confirmed, by its economy being so very similar to those birds, as to induce M. Le Vaillant to place them in the same section. Africa appears to be the favourite country of the *Lanianæ*, but the materials I have been enabled to consult are so scanty, that I am debarred from pursuing this part of my inquiries further. Enough however has been said, to prove that the last two birds we have particularly noticed, will bring us very close to the division we shall call

Thamnophilinæ.

The group we are now to consider, is eminently distinguished from the last, by the prolongated form of the bill, which is strong, compressed, and straight nearly to the tip of the upper mandible, which terminates in an abrupt hook: the tooth, so conspicuous in the last family, is here much smaller, and assumes the appearance of a deep notch: all these peculiarities indicate an inferiority of strength and a consequent difference of economy. The shortness of their wings, and the comparative weakness of their tarsi, show that neither of these organs are much employed in securing their prey. Their manners in fact are very opposite to those of the rapacious *Lanianæ*, for they are found only among thick bushes, feeding upon caterpillars and other small creeping insects, which, concealed among the foliage, escape the notice of the true Shrikes; while, to keep up the chain of affinity—we find they inherit somewhat of a rapacious disposition, by occasionally feeding upon

young or sickly birds, which take refuge in their haunts. The *Thamnophilinæ* are confined to the tropical latitudes of America, Africa, and probably Asia.*

M. Vieillot first distinguished the long-billed Shrikes of Africa and America by the generic name of *Thamnophilus*,† and in his last work has figured the *Pie-grièche blanchot* of Le Vaillant, as the type. It is important, however, that we should separate the African *Thamnophili*, from those of the new world; because we shall presently attempt to show, that they both lead to different groups; and because a peculiar distinction will be observed between them; the lateral scales on the tarsi of the African species, are formed of entire laminæ, while, in those from America, they are small and very numerous; in the first, the *rictus* is strongly bearded, in the last it is smooth.‡ The name of M. Vieillot I shall therefore confine to such species as inhabit America, agreeably to the plan adopted by M. Temminck; while those of Africa will form the Genus *Malaconotus*, and may be represented by the *T. olivaceus* of M. Vieillot. But we must leave these for the present, and notice another remarkable form seen in the genus *Vanga*, Vieil., of which two species are known, one described as a native of Madagascar, and the other inhabiting Australasia: these birds have all the indications of being rapacious, or feeding upon small animals, as well as insects, and in this respect assimilating to the Shrikes; yet the bill is decidedly formed upon the same model as that of *Thamnophilus;* it is long and straight, with an abrupt and very sharp hook, which must be a powerful weapon in destroying their prey: the nostrils are very peculiar, and are pierced in the hard substance of the bill, in a similar manner to *Cassicus*, *Ba-*

* I am unacquainted with any birds from Australasia that can be referred to the genus *Thamnophilus* of M. Vieillot; yet there is an unknown species in my collection, which, from the peculiar length of its wings, its even tail, and its general *habit*, belongs neither to the African nor American types. Reasoning from theory, I should suppose it to come from Australasia, in which case it will present a beautiful analogy to the long wings and even tail of *Falcunculus*.

† I may here observe that M. Temminck, in adopting this genus, confines it to the species found in America alone; yet I am quite at a loss to know, from the Manuel d'Ornithologie, where the African species are arranged.

‡ The tarsi of the African species are also much stronger.

rita, and some other groups; but this resemblance is merely analogous, as the whole *habit* of the bird is evidently rapacious; while the structure of the bill is so characteristic of the *Thamnophilinæ* that I am disposed to consider *Vanga* as the type of the whole family. May not the *Lanius virgatus*, T. which we have already noticed, be nearly related to this type? At present, *Vanga* appears more isolated than any group we have hitherto considered.

Closely connected with *Malaconotus*, is that singular African bird, called by Le Vaillant *Le Geoffroy*, and forming the genus *Prionops* of M. Vieillot. Its peculiarity consists in having the base of the bill concealed by a semi-circular crest of stiff, setaceous feathers; which completely cover the nostrils, over which they are directed; the wings also are more than usually long. Here I suspect we shall detect an affinity to *Dicrurus*,* whose nostrils are invariably defended by stiff incurved bristles, and whose wings are much longer than those of *Malaconotus;* this affinity seems to be strengthened by the plumage of *Prionops* having a metallic lustre, and the bristles at the rictus, (like those in *Dicrurus*) being remarkably long.

I feel considerable difficulty in assigning a station to the genus *Laniarius* of M. Vieillot, the type of which is the *Lanius Barbarus*, L. or Barbary Shrike of English writers. I notice it in this place, because if it is eventually included in the family of *Laniadæ*, its situation, undoubtedly, will be among the *Thamnophilinæ*. To these birds it is allied in general habit; its wings are short and feeble, its tail slightly rounded, though somewhat more lengthened; its plumage thick, soft, and lax, and the feathers on the lower part of the back particularly long. All these characters present a strong resemblance to *Thamnophilus* and *Malaconotus*; but in the bill, we see a marked difference; its structure is considerably weaker; it is deprived of the strong hook so conspicuous in these genera, and we are, in fact, presented with a form altogether resembling that of the *Meruladæ:* this resemblance further

* I adopt M. Vieillot's name for this group, in preference to that of *Edolius*, as proposed by M. Cuvier, because it has the unquestionable right of priority; setting aside its peculiar excellence in expressing a character which pervades the whole genus.

extends to the form of the *nares*, and the lengthened and robust tarsi. When these perplexing difficulties occur, and we are in doubt as to the situation of a bird, uniting in itself characters of two distinct tribes, our decision must always be regulated by its natural economy. Yet in the present instance, this is somewhat difficult; for the statements before us are meagre and contradictory; M. Vieillot, when describing another species of this type, (*Laniarius viridis*,) observes, probably on the authority of Perrien, (whose book I have no means of consulting,) *Elle se tient dans les bois les plus fourrés, à la cime des grands arbres, où le mâle fait entendre un sifflet fort, qui a quelque rapport avec celui de la caille d'Europe. On l'approche difficilement, si on n'imite sa voix; car il est d'un naturel sauvage et très defiant. Les baies sont sa nourriture principale.*—Galerie des Oiseaux, Liv. 43. pl. 143. On this passage I must make two remarks; relying on the accuracy of M. Vieillot, in associating this bird with the Barbary shrike, which indeed, (judging from the figure) it very much resembles. 1st, The wings of the African *Malaconotus*, like those of *Laniarius barbarus*, are rounded, and very weak; and we shall quote the opinion of M. Le Vaillant, to show the importance of this structure, when connected with their economy. "*Ces caracteres de la coupe de l'aîle influant beaucoup sur la maniere de voler des oiseaux, ceux-ci ne se rencontrent que très-rarement sur le sommet des arbres, où nous avons fait remarquer que les pie-grièches de la première section,* (G. Lanius, nob.) *se perchoient toujours de préférence; il est même des espèces dans cette seconde division,* (G. Malaconotus nob.) *que la nature exclut entièrement de dessus les arbres élevés, elles cherchent leur nourriture parmi les buissons bas et touffus, dans le centre desquels elles se cachent soigneusement, et vivent principalement de chenilles de vers et de toutes sortes d'insectes. La foiblesse de leurs aîles leur interdit toute espece d'insectes.*"

I have given this passage at length, because it acquaints us with the true economy of the *Malaconoti*, and at the same time proves the incapacity of *Laniarius* to frequent the tops of lofty trees. On the second part of M. Vieillot's statement, it may be observed, that if the principal food of *Laniarius viridis* be berries, it cannot belong to a tribe so truly insectivorous as the *Laniadæ*, but

rather to the *Meruladæ*, which are both insectivorous and baccivorous. The Barbary shrike we know, on the testimony of M. Le Vaillant, feeds entirely upon insects.

We shall discover a further resemblance between *Laniarius barbarus*, and the African Shining Thrushes, (*G. Lamprotornis*, *Tem.*), by certain setaceous hairs or weak bristles, seated, in both genera, on the upper part of the neck adjoining the occiput; but which are so hid, as not to be distinctly seen without raising the surrounding feathers, whose length they generally exceed; these singular appendages are not, however, peculiar to the above genera, but are more or less distinguishable in several others, and are remarkably developed in the genus *Tricophorus* of M. Temminck.

I have dwelled more particularly upon *Laniarius*, because a good deal will depend upon the situation which Naturalists may agree in assigning to it. For if this genus be admitted into the circle of *Thamnophilinæ*, it becomes obvious we establish a passage which leads directly to the *Meruladæ*; or as Mr. MacLeay would perhaps express it, the great circles of *Laniadæ* and *Meruladæ* might here probably touch. While, on the other hand, if the affinity between *Prionops* and *Dicrurus* be admitted, we may pass, by the former genus, from the family of *Thamnophilinæ* to the third great division of Shrikes, which will hereafter be noticed.

We must now return to the American types of this division, beginning with the genus *Thamnophilus*, which, I have already observed, will comprise such only of the *Thamnophili* of M. Vieillot as are natives of the new world. Of these birds, I possess a very interesting series, which pass so insensibly by several intervening forms into the true *Myothera* of Illiger, that I scarcely know where to draw a line between such as should take their station in the great circle of *Laniadæ*, and such as more properly may be associated with *Myothera*, in the adjoining circle of *Meruladæ*. This close affinity has been always remarked by the two eminent Ornithologists whose labours we so often advert to; and I should have been more satisfied had this intricate part of my subject already occupied their attention. Both these Naturalists are in charge of superb national museums, enriched by the spoils of English collections (which have been successively disposed

of by sale), and by the labours of public collectors sent to all parts of the world. With such enviable means, therefore, of advancing the philosophy of the science, let us hope they will bestow less attention upon *species;* and more on the study of affinities, and those general laws of Nature which claim the primary attention of a philosophic mind.

I must therefore be understood, in the following remarks, as speaking only of the American birds; for I have not yet seen any of the Indian *Myotheræ** of M. Temminck, nor am I acquainted with any species either from Africa or Australasia.

The type of *Thamnophilus* may be represented by the *Lanius doliatus* of Linnæus; and the characters by which it is separated from the African genus *Malaconotus*, have already been noticed. The bills of the larger species are strong and powerful, particularly the under mandible, which is deeply notched, and the gonix is considerably curved: it is in this organ that all the strength of the bird is concentrated; for the wings are short and rounded, the tail cuneated, narrow and weak, and the tarsi and claws much weaker than in *Malaconotus*. As we descend to the smaller species, the strength of the bill, and the size of the bird, are proportionably diminished; yet without any change of structure. It is at this stage of our progression that I propose to fix the limits of *Thamnophilus*, and pass into the genus *Formicivora:* here the bill is no longer robust; but narrow, slender, and more cylindrical; the under mandible weak, and the gonix nearly strait; the tail of some species is even longer and more cuneated than in the last group; but, as we proceed in the series of species, it becomes gradually shorter, while the tarsi are proportionably lengthened, until we come to a third type of form, wherein the

* M. Temminck has given a very extensive latitude to this genus, which was originally instituted by Illiger, from the *Turdus colma* (Pl. Enl. 821), a South American bird. In the *Manuel d' Ornithologie*, it is stated, "*Toutes les espèces sont de l'Amerique Meridionale;*" nevertheless, we find that *Myothera capistrata* and *M. melanothorax* of the *Planches coloriees* (Pl. 185) are both natives of Java. As the original genus has thus been so much changed, in order to contain other approximatory types, it is here necessary, for the sake of perspicuity, to apply the name only in reference to the type originally proposed by Illiger.

tail is nearly obsolete, and the legs (from their great length), evidently show we have reached a group of cursorial or ambulating birds, who rarely, if ever, frequent trees. These I shall call *Urotomus*. Finally, there seems to be another group, wherein the tail is again developed; the tarsi are proportionably long, but more robust; and the whole habit shows a much greater analogy to the *Meruladæ*, than any of the foregoing types: these birds I shall, for the present, consider as forming the genus *Drymophila*. Whether they should precede or follow *Urotomus*, in our advance towards the *Myotheræ* of Illiger; or whether they will partially bring us back (by a circular disposition of the other types) to *Thamnophilus*, are questions which must be decided by others, whose cabinets are better stored with materials for ascertaining these points. At all events, either *Urotomus* or *Drymophila* will conduct us very close to *Turdus Colma*, the bird which forms the original type of Illiger's genus *Myothera*.

Having now enumerated all the South American types I have seen which intervene between *Thamnophilus* and *Myothera*, I must postpone the investigation of such other kindred groups as may be found to inhabit Africa, India, or Australasia. The Indian *Myotheræ* of M. Temminck seem to differ so little from my group *Formicivora*, that they may, possibly, be united together; while the interval between the long-tailed *Drymophilæ* and the true *Myotheræ*, may perhaps be filled up either by American species I have not yet seen, or by certain African birds, only known to me by the figures of Le Vaillant. But this is conjecture, and indeed belongs not to our present inquiry, which is more to ascertain what groups really constitute the circle of *Laniadæ*, than to trace their ramifications into other tribes. In the two we have already investigated, namely, *Lanianæ* and *Thamnophilinæ*, there evidently seems a double affinity: one, by which they themselves are united, and which may be termed a *family* affinity; and another, by which they branch off, by different routes, into the neighbouring family of *Meruladæ*, and may therefore be called collateral.

These two affinities are particularly observable among the *Thamnophilinæ*. Whether the different changes of form, by which we see these transitions are effected, be called genera, subgenera,

or divisions, is of no consequence whatever to the science itself, for it is a mere question of nomenclature. We see that these forms do actually exist in Nature, and that they indicate a change or modification of economy; and by whatever name we call them, still they must be kept distinct in our ideas, if we wish to study natural affinities, and the operations of Providence in preserving the harmony of creation.

Referring to what we have already said, when noticing the genus *Prionops*, we shall make use of that type to conduct us to the third family of these birds,

Edolianæ.

It is to M. Le Vaillant that we were first indebted for a knowledge of the habits and economy of certain African birds, which he brought together under the common appellation of Drongos. Yet the ill-directed zeal for nomenclature among our Linnæan writers, prompted them to pass over the opinions of this accurate observer of Nature; and, up to this day, we find the species confusedly mixed, in their systems, with the Shrikes and Flycatchers. The Drongos first found a place in systematic arrangement, in the Nouvelle Ornithologie of M. Vieillot; who has given them the name of *Dicrurus*, from the tail, in nearly all the species, being considerably forked; in the following year they appeared in the Regne Animal, as the genus *Edolius*. Guided by the impartial rule of priority, I shall speak of these birds under the first of these names.

The *Dicruri* are altogether excluded from the American continent; they are met with in India, but are chiefly found in Africa, where M. Le Vaillant discovered a great number of species, and has given their history at some length, accompanied by numerous figures, in his valuable work *Les Oiseaux d'Afrique*. We find they are insectivorous, and take their prey on the wing: these habits are in perfect harmony with their structure: the wings are longer, more pointed, and consequently more powerful than in the *Thamnophilinæ*. Their bill is short, strong, and arched above, as in the true Shrikes; but, (as suited to their particular mode of feeding)

the base is broad, and surrounded by stiff bristles; the nostrils are also defended in the same way, and are often completely hid; further, the tooth, which is so conspicuous in *Lanius*, and is still prominent in *Thamnophilus*, altogether disappears in the Drongos; and the upper mandible is merely furnished with a notch to receive the point of the under, as in all the tribes of *Muscicapidæ;* the feet are remarkably short, and are useless either for perching upon the ground, or seizing their prey: the soles are flat, and plainly show that these birds can only repose upon branches, like the *Meropidæ*, and others, whose deeply-forked tails indicate a powerful flight. In short, the Drongos present us with the first advance, among the *Laniadæ*, towards the general structure and economy of the *Muscicapidæ*, and by considering them as forming the third great division of the Shrikes, we at once reconcile the arrangement of Linnæus with the opinions of the most eminent naturalists of the present day.

The type of this family will not however be found in the genus *Dicrurus*, but in that singular and rare bird called, by Le Vaillant, *Bec-de-fer;* and first described in the *Oiseaux d'Afrique* as having been brought from some island in the Pacific Ocean. It once graced an English museum, but now enriches that of the French capital. I can therefore only judge of its structure from the figure and description of Le Vaillant; from these it appears to be a strong, robust bird; having a short, arched, and gradually hooked bill, formed on the same model as that of *Dicrurus*, but much more powerful; defended at the rictus by long stiff bristles, and over the nostrils by lengthened, elevated, and incurved setaceous feathers, forming a sort of crest, precisely similar to what is seen in one or two species of *Dicruri*, figured by Le Vaillant. This bird forms the genus *Sparactes* of modern authors, and at present stands by itself as our second division of the group of *Edolianæ*.

But before leaving the genus *Dicrurus*, it may be proper to notice several forms by which it is insensibly connected to the short-legged Thrushes of India and Africa: this passage is begun by the genus *Tricophorus* of M. Temminck; where the bill, although somewhat weaker, still retains a great resemblance to that of the Drongos; the rictus is likewise strongly bearded, and

the tarsi equally short; but the tail is even, or slightly rounded; while the setaceous hairs, which we have before alluded to as being concealed among the nuchal feathers in *Dicrurus*, are very conspicuously developed in *Tricophorus*, and are more than double the length of the surrounding feathers. A singular uniformity of plumage runs through all the species, of which I possess four or five, all received from the western coast of Africa. This apparently limited *habitat* is likewise noticed by M. Temminck, who particularly says, *toutes sont des côtes occidentales d'Afrique.*

In some species the bill is smaller, the nuchal bristles less conspicuous, and those of the rictus much shorter. We are thus prepared for the transition, which here takes place, into the genus *Brachypus*,* a name by which I propose to distinguish the short-legged Thrushes of Linnæus and of modern writers. These birds are exclusively confined to Africa and India, and are so strikingly distinguished from the true Thrushes, that it is somewhat singular their peculiarities should not have been noticed long ago. Their tarsi are remarkably short, like the two last genera; but their bills are weaker, and the nuchal bristles scarcely perceptible. In short, it is in this genus that all the habits of the *Edolianæ* gradually disappear; and bring us to a small group of genuine Thrushes, found in Africa, having lengthened tarsi, a graduated tail, and other characters assimilating to the *Meruladæ*, all of which are seen in the *Turdus vociferans.—Zool. Ill.* 3. *pl.* 180.

It thus appears, that not only the *Thamnophilinæ*, but likewise the *Edolianæ*, will lead us by different paths to the great tribe of *Meruladæ;* the first by means of the *Myotheræ* of authors, and the latter by the genus *Brachypus.*

Leaving these collateral affinities, let us now consider what other birds may be associated with the genuine types of the *Edolianæ.* Here we are met by the genus *Irena*, a name given by Dr. Horsfield to a very beautiful and rare bird, discovered by that naturalist in the island of Java. As this form is only known to me by the figure and description that has appeared of it in the "Zoological Researches," of its discoverer, I must refer the

* Le Curouge, *Vail. pl.* 107. *f.* 1.; Le Cudor, *Ib. f.* 2.; Le Brunoir, *Ib. pl.* 106. *f.* 1. &c. &c.

reader to that work, where its characters are detailed with Dr. Horsfield's usual precision. It is enough in this place to state, that *Irena* differs more immediately from the Drongos, by having an even tail; while its relationship to those birds is shown in its strong and arched bill, bristly rictus, and very short feet. M. Temminck, whose peculiar tenets on the subject of *genera* have been so ably answered and refuted by Mr. Vigors, will not permit *Irena* to form a genus; *because* it is nearly related to *Dicrurus* (*Edolius*. Tem.); and he has actually placed it in that genus. No further proof of this affinity, therefore, need be urged; while the perusal of Dr. Horsfield's description (the accuracy of which has not been questioned) will fully establish a sufficient distinction between the two types.

The genuine Drongos appear totally excluded from Australasia; yet we find they are beautifully represented in the Ornithology of that country, by the Carinated Flycatcher. (*Zool. Ill. vol. 3. pl.* 147). This bird will in all probability form a distinct type; allied to *Dicrurus* in general habit, and to *Irena* by its truncated or even tail. I confess, that at the time of my first describing the bird, this affinity did not occur to me. I then placed it conditionally among the *Muscicapidæ*, detailing those characters which will now form its generic distinction. At present we know but of one species, but I have little doubt many others will be discovered when the inland productions of that vast country are better known.

It is here most probably that we should notice *Artamus** (Vieil.) a remarkable genus of birds from Australasia. The structure of their bill is evidently a modification of the form seen in *Dicrurus*, and will therefore bring them into the same family. Yet the extraordinary length of their wings (which in proportion and structure

* M. Vieillot first distinguished these birds by the generic name of *Artamus*, in 1816, (See Analyse d'une Nouvelle Ornithologie Elementaire, p. 41). In the following year was published the Regne Animal, where they appear as the genus *Ocypterus*. M. Temminck adopts this name. Dr. Horsfield, apparently not aware of the prior denomination of M. Vieillot, proposes *Leptopteryx*, justly observing that a genus *Ocyptera* has been already established in Entomology, by M. Latreille, in the Genera Insectorum, published in 1809.

resemble those of the *Hirundinidæ)*, leaves me in considerable doubt as to the exact situation of this singular group.

I must again refer to the Zoological Illustrations for another bird which is nearly allied to *Dicrurus*, and whose natural station is of considerable importance to our present views; this is the *Muscipeta labrosa* (Vol. 3. pl. 179), a rare bird from the interior of Southern Africa. Unfortunately, I cannot now re-examine the specimen from which my former figure and description was taken, as it was transmitted, soon after, to one of the continental museums. Yet the particulars I then detailed will materially guide us on this occasion. It appears to have a thick and strong bill, the four outer quill-feathers graduated, the tarsi very short, the knees feathered, and the plumage black with a metallic lustre. We here recognize the general characters of *Dicrurus*; while the rounded shape of the tail, the form of the *nares*, and the absence of strong bristles at the bill, show a decided approximation towards another family of insectivorous birds. In short, so closely does the *Muscipeta labrosa* approach to the Echenilleurs of M. Le Vaillant (G. *Ceblepyris*, *Cuv.*) that at this distance of time, I almost question whether I might not have overlooked the spinelike feathers on the back, by which those birds are so well distinguished. Yet, even admitting this to be the case, still its connection with *Dicrurus* is sufficiently obvious, to be adduced as a proof of the accurate views of M. Le Vaillant; who places the Echenilleurs close to the Drongos, and in which arrangement he is followed by M. Temminck. I shall therefore not greatly err in adopting the same belief, and in supposing that the *Muscipeta labrosa* may probably represent a form by which these two groups are connected.

Having now enumerated all the types of form I have yet seen, which may be referred to the *Edolianæ*, I hope to continue the subject in the next number of this Journal, and to show that the Echenilleurs, most probably, will represent the fourth division in the great family of *Laniadæ*.

[*To be continued.*]